

CLAIMS:

1. An imaging element comprising at least one imaging layer and a base wherein said base comprises a foam core layer and at least one polymeric surface smoothing layer, and wherein said closed cell foam core layer comprises a polymer that has been expanded through the use of a blowing agent, and wherein
5 said at least one polymeric smoothing layer comprises a solution polymer.

2. The imaging element of Claim 1 wherein said polymer comprises at least one homopolymer.
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3. The imaging element of Claim 2 wherein said homopolymer comprises at least one member selected from the group consisting of polyolefin, polystyrene, polyvinylchloride, polyurethanes, polyisocyanurates, and copolymers thereof.
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4. The imaging element of Claim 2 wherein said homopolymer comprises polyolefin.

5. The imaging element of Claim 2 wherein said homopolymer comprises polystyrene.
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6. The imaging element of Claim 2 wherein said homopolymer comprises polyurethanes.

7. The imaging element of claim 1 wherein said at least one smoothing layer comprises an aqueous solution polymer.
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8. The imaging element of Claim 1 wherein said solution polymer comprises monomer units derived from oleophilic monomers.
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9. The imaging element of claim 1 wherein said at least one polymeric smoothing layer comprises at least one member selected from the group consisting of styrene, butadiene and co-polymers thereof, acrylate and co-polymers thereof, polyvinyl acetate, polyvinyl pyrrolidinone, and polyurethane.

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10. The imaging element of claim 1 wherein said at least one polymeric smoothing layer comprises styrene and derivatives thereof.

11. The imaging element of claim 1 wherein said at least one
10 polymeric smoothing layer comprises butadiene and co-polymers thereof.

12. The imaging element of claim 1 wherein said at least one polymeric smoothing layer comprises acrylate and co-polymers thereof.

13. The imaging element of Claim 1 wherein said at least one
15 polymeric smoothing layer comprises at least one member selected from the group consisting of acrylic acid and its esters, methacrylic acid and its esters, styrene and its derivatives, acrylates, methyl vinyl ether, chlorostyrene, vinyltoluene, vinyl chloride, vinylidene chloride, butadienes, maleic acid, itaconates, vinyl
20 pyrrolidone, vinyl acetate, acrylamides and methacrylamides, gelatin, polyvinyl alcohol, polyvinyl butyral, cellulotics, polyurethanes, polyesters, epoxies, and base neutralized, carboxylic acid-containing latex polymers.

14. The imaging element of Claim 1 wherein said at least one
25 polymeric smoothing layer comprises acrylic acid and its esters.

15. The imaging element of Claim 1 wherein said at least one polymeric smoothing layer comprises methacrylic acid and its esters.

16. The imaging element of Claim 1 wherein said at least one
30 polymeric smoothing layer comprises gelatin.

17. The imaging element of Claim 1 wherein said at least one polymeric smoothing layer comprises polyurethanes.

5 18. The imaging element of Claim 1 wherein said closed cell foam core has at least two sides and said at least one polymeric smoothing layer is applied to at least one side of said at least two sides of said closed cell foam core.

19. The imaging element of Claim 1 wherein said polymeric smoothing layer further comprises at least one pigment.

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20. The imaging element of Claim 19 wherein said pigment comprises at least one member selected from the group consisting of TiO₂, BaSO₄, clays, talcs, CaCO₃, ZnO, and Al₂O₃.

15 21. The imaging element of Claim 1 wherein said polymeric smoothing layer further comprises at least one addenda selected from the group consisting of colorants, optical brighteners, foam control agents, viscosity modifiers, crosslinking agents, antioxidants.

20 22. The imaging element of Claim 1 wherein said foam core layer comprises polyolefin.

23. The imaging element of Claim 22 wherein said polyolefin comprises polyethylene or polypropylene.

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24. The imaging element of Claim 1 wherein said blowing agent comprises a mechanical, chemical, or physical agent.

25. The imaging element of Claim 24 wherein said blowing agent
30 comprises sodium bicarbonate/citric acid mixtures, or azodicarbonamide.

26. The imaging element of Claim 1 wherein said foam core layer further comprises organic or inorganic fillers.

27. The imaging element of Claim 1 wherein said foam core layer
5 further comprises at least one member selected from the group consisting of an auxiliary foaming agent, nucleating agent, and a crosslinking agent.

28. The imaging element of Claim 1 wherein said foam core layer has a thickness of from 25 to 200 μm .
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29. The imaging element of Claim 1 wherein said foam core layer has an opacity greater than 90%.

30. The imaging element of Claim 1 further comprising at least
15 one flange layer.

31. The imaging element of Claim 30 wherein said at least one flange layer comprises a polymer sheet.

32. The imaging element of Claim 30 wherein said flange layer
20 comprises at least one high modulus polymer selected from the group consisting of high-density polyethylene, polypropylene, polystyrene, their blends or their copolymers.

33. The imaging element of Claim 30 wherein said polymer sheet
25 is formed integrally with said foam core layer.

34. The imaging element of Claim 30 wherein said polymer sheet
30 comprises a biaxially oriented polyolefin sheet.

35. The imaging element of Claim 30 wherein said polymeric smoothing layer is located between said foam core layer and said flange layer

36. The imaging element of Claim 30 wherein said flange layer is
5 located between said foam core layer and said polymeric smoothing layer.

37. The imaging element of Claim 30 wherein said flange layer further comprises inorganic or organic filler.

10 38. The imaging element of Claim 37 wherein said fillers comprise talc, mica, and calcium carbonate.

39. The imaging element of Claim 30 wherein said flange layers have a caliper of from 10 μm to 150 μm .

15 40. The imaging element of Claim 30 wherein said flange layers have a caliper of from 35 μm to 70 μm .

41. The imaging element of Claim 30 wherein said flange layer has
20 an opacity greater than 90%.

42. The imaging element of claim 1 wherein the upper surface of said base has an average roughness of from 0.1 μm to 1.1 μm .

25 43. The imaging element of Claim 1 wherein said base has opacity greater than 90%.

44. The imaging element of Claim 1 wherein said base has a thickness of from 100 to 400 μm .

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45. The imaging element of Claim 1 wherein said imaging layer comprises at least one photosensitive silver halide layer.

5 46. The imaging element of Claim 1 wherein said imaging layer comprises an ink jet receiving layer.

47. The imaging element of Claim 1 wherein said imaging layer comprises a thermal dye receiving layer.

10 48. The imaging element of Claim 1 wherein said imaging element further comprises at least one inorganic pigment.

15 49. The imaging element of Claim 48 wherein said pigment is selected from the group consisting of TiO_2 , CaCO_3 , clay, and talc.